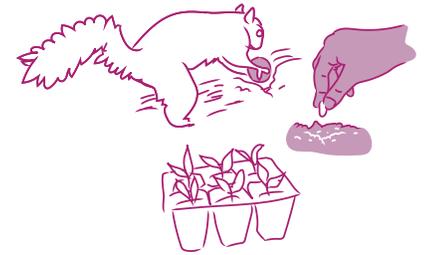


Garden Task

Planting

Planting is a critical task in the garden because it connects us to culture, community, elder knowledge, and seasons. Through this garden task we determine which plants to include in the garden and how to prepare a place for them in the garden. It is a hopeful time of looking forward, preparing for the garden season ahead and connecting to plants that are important to us and our communities.



Connections to Science Content

What do we need to know in order to do the garden task?

Needs: Knowing what plants need to live a healthy life is important when doing this garden task (seed depth, distance, soil temperature, moisture, light level)

- For example: when directly sowing corn I need to plant once the soil temperature is at least 50 F. The seeds should be directly sown 1 foot apart, in full sun and I will need to check on them daily to ensure the seeds have enough water

Phenology: Knowing the season (hours of sunlight per day) as well as weather patterns (air temperature, precipitation, first/last frost dates) help gardeners determine when to plant. .

- For example: when selecting plants and planting dates gardeners must consider microclimates and planting zones. This will also help determine which plants need to be started indoors in this region.

Plant life cycle: Understanding the plant life cycle is important when planning for interplanting or succession gardening. It is also important to know what plants look like during different parts of their cycles.

- For example, I can plant radishes in the spring because they have 40 days to harvest and I will be able to harvest them before I plant my tomatoes.

Plant structure: Knowing plant parts can be helpful when troubleshooting issues.

- For example, identifying root bound plants, or identifying true leaves when potting up.

Relationships: Identifying connections and relationships in the garden is important when making decisions about planting (plant companions, plant families, root systems, soil needs)

Knowing

Being



Doing

Garden Methods

What are methods we use to do this garden task?

Selecting crops

- Identifying the right crop of this season and climate
- Finding a reputable seed/transplant source
- Using a seed catalog
- Identifying preferences and purposes of crops

Preparing Soil (see also Soil Health Task)

- Soil temperature, moisture /saturation level
- Soil testing and adding amendments
- Tilling under cover crop, or removing mulches

Planting

- Seeding
 - » Seed depth, distance, interplanting, labeling, record keeping
- Transplanting
 - » Transplant depth, distance
 - » amendments
- Bare Root or Cutting
 - » Depth, distance
 - » Root pruning
 - » Root stimulant amendment
- Divide perennials

Seasonal extensions or supports

- Does transplant need warmth (cloche/ greenhouse), shade or heat protection (shade cloth/remay)
- Frequency of watering new seeds
- See also plant growth and development (watering, fertilizing, thinning, trellising, etc)



Importance/Intent

Why does it matter to me/my family/our broader community to do this garden task? How does this garden task affect people outside of my community?

Our garden decisions are driven by the values of our communities and families:

Indigenous Sovereignty:

How is the way you are gardening supporting Indigenous livelihoods and rights? Whose land are we on? What is our ethical responsibility to Indigenous peoples and relationships to this land?

- In the Pacific Northwest, dams, dikes, invasive species and other factors have impacted foods that Indigenous people have planted in this area for thousands of years. How can we plant our garden in a way that improves growing conditions for these traditional foods?

Futurity:

It is important to consider the lasting impacts of the garden method (5 years, 20 years, 100 years). Are you gardening in a way that ensures soil communities will thrive into the future?

- For example, in British Columbia, a 3000 year old Wapato garden was identified by the layer of rocks that were used to prevent the potato tubers from rooting too deep. This planting (and harvesting) technique improved the health of the wetland ecosystem

Thrivance & Sustenance

Gardeners can maximize harvests through planting techniques or planning for year round produce. This connects gardeners deeply to eating and working with the seasons.

Attunement: Gardeners are attuned to the time scale of seeds. There is a recognition of how long you have to wait to harvest! There is also an appreciation of the potential and the power of seeds for continuing life.

Relationships: Understanding the importance of seeds in nourishing other life forms (one for the blackbird, one for the crow, one for the grub, one to grow).

Culture/History: Gardeners may choose plants that have historic, community and cultural value to their family, such as saving and regenerating heirloom plants and traditional foods, etc.

CONNECTING TO OTHER GARDEN PRACTICES

- **Soil Health:** preparing the soil for planting by digging, tilling and removing weeds, identifying when the soil is ready to plant by checking moisture level and temperature, planning for rotation of crops for nutrients and soil-borne disease
- **Plant Growth and Development:** caring for plants in the early stages of their life cycle by watering, thinning, row cover, season extension, etc.
- **Garden Planning:** deciding what to plant (planning for successional planting, crop rotations, etc)
- **Harvesting:** Harvesting the crop from an earlier planting succession
- **Watering:** watering deeply to encourage deep roots, watering seeds frequently because their roots are small.

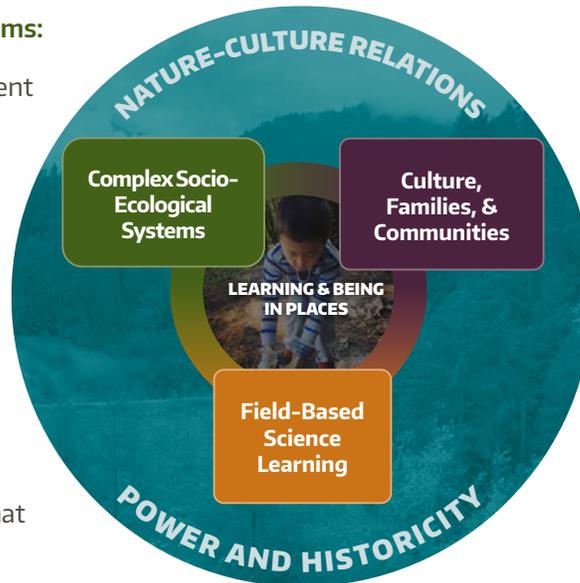
Engaging the Learning in Places Rhizome with Practice

Power and Historicity; Nature-Culture Relations:

- What is the cultural and historical value of planting practices and the cultural resurgence that can come from growing food that are culturally valuable for medicine, culture, etc.?
- What plants can connect us to other parts of the world?
- What animals (besides humans) plant seeds here?

Complex Socio-Ecological Systems:

- How does the built environment create microclimates that require us to adapt our planting practices?
- How are planting practices and planting calendars adjusting with changes to our climate?
- What are the histories of this place? How does that impact the seed bank in the soil and the types of plants that 'volunteer' to grow here?



Culture, Families, and Communities:

- What crops have historic, community and cultural value to my family? (such as saving and regenerating heirloom plants, traditional foods, medical plants, plants valuable for diasporic/ refugee communities, etc)
- How do planting practices differ by region and season?
- What are the planting practices of our families and communities?

Field-Based Science Learning:

- Data & Modeling: What garden observations can help identify the right plants for the right place?
- Decision Making & Making Change: What is the best method to plant in this season? How many seeds should be planted?

Storyline Examples for Planting

LE 2: Common "Should We" questions

- » What should I plant now? (crop selection and season)
- » Should we plant now - is soil ready?
- » Should I plant seeds or transplants?
- » Should I allow animals/plants to put seeds in the garden?

LE 4: Garden Methods

- » Different forms of propagation (seeds, transplants, cutting)
- » Planting charts, length of life cycle to harvest
- » Reading a seed packet, seed catalog (how deep to plant seeds, when to plant)
- » Direct sowing seeds, broadcasting (scattering seeds), "seed bombs", allowing plants to self-seed

LE 6: Data Collection Connections

- » How does the soil temperature change over time?
- » How does the hours of sunlight per day impact when I should plant?

LE 6: Sample Investigation questions

- » How do animals behave around newly seeded garden versus transplants?